## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

P22EA Revision 8 McCAULEY 3AF32C D3AF32C 3AF34C May 24, 2006

## TYPE CERTIFICATE DATA SHEET NO. P22EA

Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P22EA) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder McCauley Propeller Systems

7751 East Pawnee Wichita, KS 67207

Type Certificate Holder Record: Name changed from McCauley Accessory Division, Cessna Aircraft Company,

Vandalia, OH 45377 to McCauley Propeller Systems, 7751 East Pawnee,

Wichita, KS 67207 May 2006.

Type Constant Speed & full feathering; Hydraulic (see NOTES 3 and 4)

Engine Shaft Special flange 4 in. B.C.

Hub material Aluminum alloy Blade material Aluminum alloy

No. of blades Three

Hubs eligible D3AF32C35, 3AF32C72, 3AF34C74, D3AF32C80, 3AF34C86,

3AF32C87, D3AF32C87, 3AF34C92, 3AF32C93.

		kimum			Diameter			
		tinuous	<u>Takeoff</u> Limits			Approx. Max. Wt. Complete		
Blades	HP	RPM	HP	RPM	(See Note 2)	(Reference only - See NOTE 3)		
			ī	Iuh Madal	2 A E20C72			
<u>Hub Model 3AF32C72</u> 82N-0								
to	285	2700	285	2700	82" - 74"	78.5 lbs.		
82N-8					(-0 to -8)			
			Hub Mo	dala 2 A E22	C75 D2 A D22C25			
82NB-0			HUD MO	dels 3AF32	C75, D3AF32C35			
to	300	2700	300	2700	82" - 74"	75.0 lbs.		
82NB-8		_, _,		_, ,	(-0 to -8)			
		**		F22 G00	2 + F22 G07 - D2 + F22 G05			
PONG 0		Hub N	lodels D:	3AF32C80 <u>,</u>	3AF32C87, D3AF32C87	<u> </u>		
82NC-0 to	310	2700	310	2700	82" - 74"	*75.0 lbs., **79.0 lbs.		
82NC-8	310	2700	310	2700	(-0 to -8)	75.0 108., 75.0 108.		
			<u>I</u>	Hub Model :	3AF32C93			
82NC-2	225	2700	225	2700	00" 74"	70.01		
to 82NC-8	325	2700	325	2700	80" - 74" (-2 to -8)	79.0 lbs.		
021 <b>\C</b> -0					(-2 to -6)			
Hub Models 3AF34C74, 3AF34C86, 3AF34C92								
90LF-0								
to	375	2400	375	2400	90" - 84"	83.5 lbs.		
90LF-6					(-0 to -6)			

<sup>\*</sup> With hub model D3AF32C80

<sup>\*\*</sup> With hub models 3AF32C87, D3AF32C87, 3AF32C93

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Certification basis

Models 3AF32C72/82N, 3AF32C75/82NB, 3AF34C74/90LF, D3AF32C80/82NC, D3AF32C80/82NC, 3AF34C86/90LF, 3AF32C87/82NC, and 3AF34C92/90LF:

Federal Aviation Regulations Part 35 with Amendment 35-1 thereto.

All other models:

Federal Aviation Regulations Part 35 with Amendments 35-1 and 35-2 thereto. Type Certificate No. P22EA issued June 7, 1965 under Delegation Option Authorization provisions of Part 21 Subpart J of the Federal Aviation Regulations. Date of Application for Type Certificate April 28, 1965.

Production basis

Production Certificate No. 3

### NOTE 1. <u>Hub Model Designation</u>

Basic Model Designation

D 3 A F 32 C 72 - A

Minor change not affecting interchangeability or eligibility

Change affecting eligibility.

C denotes constant speed.

McCauley blade shank size

F denotes feathering model.

A denotes special flange 4" B.C.

3 denotes number of blades

Indicates dowel location with respect to centerline through blade sockets, viewing hub from mounting face.

Blank - 60° and 240° clockwise with No. 1 blade vertical and up. D - 90° and 270° clockwise with No. 1 blade vertical and up.

#### NOTE 2. <u>Blade Model Designation</u>

Basic model designation

| 82 | NC | - 0 | Reduction in inches from basic diameter (as -4, diameter reduced 4 inches to 78 inches.)
| Blade form characteristics, i.e. activity factor, planform, pitch

distribution, etc. One or more letters may be used.

Basic design diameter in inches.

Minor change not affecting interchangeability or eligibility.

## NOTE 3. <u>Pitch Control</u>. Eligible with the following governors:

Woodward Model	x,210,xxx	Wt. 3.5 lb.
McCauley Models	CF310D1/T[X], CF310D2/T[X]	Wt. 3.0 lb.
McCauley Models	CFS310D1/T[X], CFS310D2/T[X],	Wt. 3.0 lb.
	CFS310D3/T[X]	
McCauley Models	CFU310D1T/[X], CFU310D2/T[X],	Wt. 3.0 lb.
McCauley Models	CFUS310D1/T[X], CFUS310D2/T[X],	Wt. 3.0 lb.
	CFUS210D3/T[X]	
McCauley Models	DCF290DX/TX,	Wt. 3.0 lb.
McCauley Models	DCFS290DX/TX, DCF310D(X)/T(X)	
	DCFS310D(X)/T(X)	Wt. 3.0 lb.
McCauley Models	DCFU290DX/TX, DCFU310D(X)/T(X)	Wt. 3.0 lb.
McCauley Models	DCFUS290DX/TX, DCFUS310D(X)/T(X)	Wt. 3.0 lb.

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- NOTE 4. <u>Feathering.</u> Eligible with full feathering control installed in accordance with the propeller manufacturer's instructions.
- NOTE 5. <u>Left-Hand Models</u>. The left-hand version of an approved model is eligible at the same rating and diameter limitations as listed for the right-hand model.

## NOTE 6. <u>Not applicable.</u>

#### NOTE 7. Accessories.

- (a) Propeller Anti-Icing
  - Model 82N, 82NB, 82NC and 90LF blades eligible with Goodrich 4E1188-3 deicer installed per Goodrich Report No. 59-728; or with Goodyear 4065-2556 or 4065-2551 iceguard installed per Goodyear Manual AP-147.
  - (2) Model 90LF blade eligible with Goodrich 37572 fluid feed shoe, 12 inches maximum length, when applied in accordance with McCauley or Goodrich instructions.
  - (3) Model 82NB blade eligible with Goodrich 37572 fluid feed shoe, 10 inches maximum length, when applied in accordance with McCauley or Beech (Beech Specification BS-388) instructions.

#### (b) Spinners

- (1) Models 3AF32C72/82N, 3AF32C87/82NC and 3AF32C93/82NC eligible with McCauley plain or anti-icing spinners; reference D-3534 Dome, D-3537 Bulkhead and D-3538 Installation.
- (2) Models 3AF34C74/90LF and 3AF34C92/90LF eligible with McCauley plain or anti-icing spinner; reference D-3573 Dome, D-3576 Bulkhead and D-3574 Installation.
- (3) Model 3AF32C75/82NB eligible with McCauley plain or anti-icing spinner; reference D-3570 Dome, D-3571 Bulkhead, and D-3499 or PD-3499 Installation; or D-3607 Dome, D-3608 Bulkhead, and D-3605 or PD-3605 Installation.
- (4) Model D3AF32C80/82NC eligible with McCauley spinner; reference D-3651 Dome, D-3652 Bulkhead, and D-3649 Installation.
- Model 3AF32C86/90LF eligible with McCauley spinner, reference D-3626 Dome, B-3627 Bulkhead, and D-3625 Installation.
- (6) Model 3AF32C87/82NC eligible with McCauley spinner, reference D-3651 Dome, B-3863 Spacer, C-3862 Support, D-3925 Bulkhead, C-4044 Bulkhead adapter and D-4042 Installation.
- (7) Model D3AF32C35/82NB eligible with McCauley plain or anti-icing spinner; reference D-3570 Dome, D-4151 Bulkhead and D-4068 or PD-4068 Installation; or D-3607 Dome, D-4150 Bulkhead and D-4069 or PD-4069 Installation.

#### NOTE 8. <u>Not applicable.</u>

## NOTE 9.

# <u>Table of Propeller-Engine Combinations</u> <u>Approved Vibrationwise for Use on Normal Category Single Engine Tractor Aircraft</u>

The maximum and minimum propeller diameters that can be used from a vibration standpoint are shown below. No reduction below the minimum diameter listed is permissible, since this figure includes diameter reduction allowable for repair purposes.

	Hub <u>Model</u>	Blade <u>Model</u>	Engine Model	Engine Damper Configuration	Max. Dia. (Inches)	Min. Dia. (Inches)	<u>Placards</u>
or	3AF32C75 D3AF32C80	82NB 82NC	Continental IO-470 series (up to 260 hp. @2625 r.p.m. rating)	Two 6th & Two 5th Order; or Two 6th, One 5th & One 4.5 Order	80	74	None
or	3AF32C93 D3AF3287	82NC 82NC	Continental IO-470 series (up to 260 hp. @2625 r.p.m.)	Two 6th and Two 5th order to Two 6th, one 5th and one 4.5 Order	80	74	None
or	3AF32C72 3AF32C75	82N 82NB	Continental IO-520 or TSIO-520 series (up to 285 hp. @2700 r.p.m. rating)	Two 6th, One 5th & One 4th Order	78	74	None

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	Hub <u>Model</u>	Blade <u>Model</u>	Engine Model	Engine Damper Configuration	Max. Dia. (Inches)	Min. Dia. (Inches)	<u>Placards</u>
	3AF32C93	82NC	Continental IO-520 series (up to 300 hp. @2850 r.p.m. takeoff and 285 hp. @2700 r.p.m. max. continuous)	Two 6th, one 5th and one 4th Order	80	74	None
or	D3AF32C87 3AF32C87	82NC 82NC	Continental IO-520 series (up to 300 hp. @2850 r.p.m. takeoff and 285 hp. @2700 r.p.m. max. continuous)	Two 6th, one 5th and one 4th Order	80	74	None
	D3AF32C35	82NB	Continental IO-520 series (up to 285 hp. @2700 r.p.m.)	Two 6th, One 5th and one 4th Order	78	74	None
or	3AF32C75 3AF32C87 D3AF32C80	82NB 82NC 82NC	Continental IO-520 or TSIO-520 series (up to 285 hp. @2700 r.p.m. rating)	Two 6th, One 5th & one 4th Order	80	74	None
	D3AF32C35	82NB	Continental TSIO-520 series (up to 285 hp. @2700 r.p.m.)	Two 6th, One 5th and one 4th Order	80	74	None
or	3AF32C75 3AF32C87	82NB 82NC	Continental TSIO-520 series (up to 300 hp. & 2700 r.p.m.)	Two 6th, One 5th & One 4th Order	80	74	None
	3AF32C93	82NC	Continental TSIO-520 series (up to 300 hp. @2700 r.p.m.)	Two 6th & One 5th and one 4th Order	80	74	None
	3AF32C93	82NC	Continental TSIO-520 series (Up to 310 hp. @2700 r.p.m. and 36 in. manifold pressure)	Two 6th, one 5th and one 4th Order	76.5	74.5	None
	3AF32C93	82NC	Continental TSIO-520 series (up to 310 hp. @2700 r.p.m. and 36 in. manifold pressure)	Two 6th, one 5th and one 4th Order	78.5	77	"Avoid continuous operation below 2500 r.p.m. above 33 in. manifold pressure"
	3AF32C93	82NC	Continental TSIO-520 series (up to 310 hp. @2700 r.p.m. & 38 in. manifold pressure)	Two 6th, one 5th and one 4th Order	76.5	75	None
	3AF32C93	82NC	Continental IO-520 or TSIO-520 series (up to 285 hp. @2700 r.p.m.)	Two 6th, one 5th and one 4th Order	80	74	None
	3AF34C74	90LF	Continental GTSIO-520 series (up to 340 hp. @2400 prop. r.p.m. or 3200 engine r.p.m.)	Six 3rd Order	88	86	None

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	Hub <u>Model</u>	Blade <u>Model</u>	Engine Model	Engine Damper Configuration	Max. Dia. (Inches)	Min. Dia. (Inches)	<u>Placards</u>
or	3AF34C74 3AF34C86 3AF34C92	90LF 90LF 90LF	Continental GTSIO-520 series (up to 340 hp. @ 3200 engine r.p.m. & 2400 propeller r.p.m. rating)	Six 3rd Order	90	84	None
	3AF34C74 3AF34C92	90LF 90LF	Continental GTSIO-520 series (up to 375 hp. @3400 engine r.p.m. & 2267 propeller r.p.m.)	Six 3rd Order	90	88	None

NOTE 10. The word "eligible" as used herein does not signify approval as part of this type certificate. "Eligible" accessories and governors must be approved as part of the aircraft type certificate upon compliance with the applicable aircraft airworthiness requirements.

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